

NOTES

TIPIFICATIONS OF NORTH AMERICAN *SALIX* (SALICACEAE), MOSTLY MEXICAN. Robert D. Dorn, Box 1471, Cheyenne, WY 82003.

Types encountered in the course of other studies or received too late to incorporate into other papers are dealt with in this note.

Salix cana M. Martens & Galeotti, Bull. Acad. Roy. Sci. Bruxelles 10(4):344. 1843. TYPE: MEXICO, Veracruz, Fl. Aout. bord des Ruisseaux In Volcan D'Orizaba à 12,000 pd, Nov–Apr 1840, *Galeotti* 69 (holotype, BR, lost; lectotype, designated here, P!; isolectotype, G!).

The application of this name has been uncertain ever since it was described. This is partly because the original description does not totally match the type specimens and partly because only three additional collections are known. The following description is based on the lectotype and isolectotype, which are vegetative, and the other collections cited below.

Trees about 4 m high (ca. 7–9 m for the type); year-old branchlets reddish-brown, glabrous (pubescent); branchlets of year greenish or yellowish, becoming reddish-brown, pubescent (glabrous); expanded leaf blades narrowly elliptic, 3–5 cm long, 0.6–0.9 cm wide, acute at tip, less sharply acute at base, glaucescent on underside, entire, pubescent with some reddish hairs, becoming glabrous on upperside or sometimes on both sides, petioles 1–3 (4) mm long, stipules lacking; staminate aments subprecocious, 0.6–1 cm long, sessile or nearly so but with small leaves at base, stamens 2, anthers 0.4–0.5 mm long, filaments pubescent toward base, floral bracts light to dark brown, oblanceolate to obovate, 1–1.5 mm long, pubescent with relatively short, straight hairs; pistillate aments subprecocious, 0.8–1.2 cm long, subsessile with small leaves at base, pistils 2–3 mm long, pubescent, styles 0.2–0.3 mm long, stipes mostly 1–2 mm long, floral bracts 1.5–2.5 mm long, dark brown to black, short-pubescent. *Abies* and *Pinus* forests, stream sides, and humid ravines, 2750–3700 m.

Other specimens examined. MEXICO, Hidalgo, Mpio. de Real del Monte, Peñas Largas, cerca de Tezoantla, 2750 m, staminate, 12 Mar 1970, *Rzedowski* 27135 (LL, US). This collection most closely matches the type. Mexico, Mpio. Ixtapaluca, Estación Experimental de Investigación y Enseñanza de Zoquiapan, 8 km al S de Río Frio, Cañada Temascatitla, ca. 200 m del Camino 4, hacia abajo, pistillate, 18 Mar 1979, *Vega Aviña* 585 (F). This collection is only tentatively placed here because the leaves are too young for comparison with the

type and the floral bracts are darker than *Rzedowski* 27135. Veracruz, Mpio. Calcahualco, glacier fed beginnings of Río Jamapa just upstream from where (impassable) road from Coscomatepec-Escuela-Jacal crosses Río Jamapa on way to Miguel Hidalgo & Tlachichuca in Edo. Puebla, 5 km SW of Jacal, 3450 m, vegetative, 8 Jul 1982, *Nee & Diggs* 24848 (F).

This species resembles *Salix geyeriana* Anderson so I would tentatively place it in Section *Cinerella* (*Vetrix*).

Salix endlichii Seemen, Repert. Spec. Nov. Regni Veg. 5:19. 1908. TYPE: MEXICO, Chihuahua, In den Tälern der westlichen Sierra Madre, 2250–2400 m, 16–17 Apr 1906, *Endlich* 1225a, 1226 (syntypes, B, destroyed; duplicates not located).

Schneider (J. Arnold Arbor. 3:78. 1921) was unable to find the type collections at B before the willow collection there was destroyed. No duplicates have been located. The original description does not match any known American willow, although it resembles *S. cana*. It must remain uncertain until material matching the description is collected or duplicates of the syntypes surface. A brief description from the original follows.

Shrub to 1 m; leaves narrowly lanceolate, to 1.6 cm long, 0.3 cm wide, entire, glabrous, gray-green (glaucous?) on underside, petioles to 0.1 cm, stipules none; aments coetaneous, sessile, subglobose, to 0.7 cm long; stamens 2, filaments pubescent, nectary 1; capsules pubescent, stipe half as long as capsule, style short, nectary 1, floral bracts oblong, light brown with darker tip, sparsely crisp-puberulent and bearded.

Salix latifolia M. Martens & Galeotti, Bull. Acad. Roy. Sci. Bruxelles 10(4):344. 1843, non Forbes, *Salict. Woburn.* 235, t. 118. 1829. *Salix oxylepis* C. K. Schneid., Bot. Gaz. 65:34. 1918. TYPE: MEXICO, Veracruz, Fl. en Aout. bord des Ruisseaux à 12,500 pd Volcan D'Orizaba, Jun–Oct 1840, *Galeotti* 70 (holotype: BR, lost; lectotype designated here, P!).

This somewhat deformed specimen is the same as *Salix paradoxa* Humb., Bonpl. & Kunth.

Salix pameachiana Barratt, *Salices Amer.* No. 16. 1840. TYPE: USA, Connecticut, "Middletown," staminate shoot, Apr 26, *Barratt s. n.* (lectotype designated here, NY!).

This material is the same as *Salix alba* L. representing an early naturalization.

Salix paradoxa Humb., Bonpl. & Kunth var. *ajuscana* C. K. Schneid., Bot. Gaz. 65:37. 1918. TYPE: MEXICO, [Federal District], La Cima de Ajusco, 3200 m, 21 May 1898, pistillate, Pringle 6795 (lectotype designated here, GH!, photo A!; isolectotypes, A!, F!, MEXU!, NY!, RM!, US!).

This is merely a pubescent extreme of *Salix paradoxa*. The isolectotype at F is also the holotype of *Salix pringlei* Rowlee.

Salix rowleei C. K. Schneid. var. *cana* C. K. Schneid., Bot. Gaz. 65:34. 1918. TYPE: MEXICO, Federal District, La Cima de Ajusco, 3100 m, 16 Apr 1898, Pringle 6794 (lectotype designated here, GH!, photo A!; isolectotypes, A!, MEXU!, RM!, US!).

Salix rowleei is merely a glabrous-capsuled form of *Salix paradoxa*.

Salix stipulacea M. Martens & Galeotti, Bull. Acad. Roy. Sci. Bruxelles 10(4):343. 1843. TYPE:

MEXICO, "Croît an bord du Rio Grande de Mextitlan," Ravins près Real del Monte, 5000, "Fl. en octobre," Nov-Apr 1840, Galeotti 75 (holotype, BR, lost; lectotype designated here, P!).

This is similar to *Salix humboldtiana* Willd. and *Salix nigra* Marshall. The proper disposition must await detailed study.

Salix waghornei Rydb., Bull. New York Bot. Gard. 1:271. 1899. TYPE: Probably eastern CANADA, "Salix cordifolia Fl. Bor. Am." Torrey Herbarium, pistillate (lectotype designated here, NY!).

This is the same as *Salix arctica* Pall.

I thank Ronald Hartman for use of the facilities at RM, the curators of the cited herbaria from which specimens were borrowed, the curators of BR, CU, and L for searching for type material, and the staff at RM for assistance with loans.